

# Fighting Fire

## with Fire

### NAS Meridian Uses Controlled Burns to Prevent Wildfires

**F**oresters from the Naval Facilities Engineering Command (NAVFAC) Southeast are taking steps to ensure everything that can be done is done to reduce the risk of wildfires at the Naval Air Station (NAS) Meridian, MS.

Many visitors to NAS Meridian are alarmed when they see fires in the forest. But, as NAS staff is quick to point out, not all fires are bad.

Fire acts as a natural housekeeper. It promotes the growth of a diverse array of grasses and forbs, helping to reduce heavy fuel accumulations (dense amounts of kindling) which can lead to catastrophic wildfires.

Early foresters sought to change the public's attitude about fire. The lumber industry under President Teddy Roosevelt promoted the belief that all forest fire is bad. That mindset became further entrenched under the Smokey Bear campaign.

Public Works Department (PWD) Meridian Forester Jim Copeland is one of the new generation of foresters working to change this perception.

"The California, Florida and Georgia fires of 2007 show us that when fire is artificially excluded from an ecosystem, brush and other fuels accumulate until ultimately lightning, carelessness, or an arsonist provide the spark that ignites an inferno," Copeland says. He added that 2007 was particularly hazardous due to an extended drought and the debris left from Hurricanes Katrina and Ivan.

Visitors to the NAS Meridian administration area last year were often witness to prescribed burns. The buildings of the administration area are interspersed with 102 acres of forest and surrounded by thousands more acres of forest belonging to the Navy and area landowners. The PWD Meridian Environmental Business Line monitors this area and

other areas on the installation and burns the undergrowth periodically to reduce the dangers of wildfire.

The Choctaws Indians, who originally occupied these lands, practiced controlled burns long before American settlers arrived. (For more information about the Choctaws, see our sidebar entitled "The Basics About the Choctaw Indians.") They did not have modern technology like C-130 tankers and D-9 bulldozers to stop fires, but they probably didn't need them.



A controlled fire burning near the administration area on 1 December 2007.



A PWD Meridian employee uses a torch to set a "back fire."



Trees damaged during hurricanes Katrina and Ivan are burned.

## THE BASICS ABOUT THE CHOCTAW INDIANS

The Choctaws are the original inhabitants of the American southeast. At its peak, the tribe is estimated to have reached a quarter of a million people in what are now Alabama, Louisiana, Florida and Mississippi. In fact, the word "Mississippi" is Choctaw in origin.

Primarily an agricultural people, the Choctaws were highly successful farmers, raising more food than they could use and selling the surplus to surrounding tribes. Women did most of the farming; raising corn, beans, pumpkins, and melons in the little plots by their cabins. These fields were secured by burning the underbrush and girding the larger trees.

The men were the hunters and warriors. They would burn the underbrush in the forest each year to create a more appealing habitat for deer and other wildlife.

In 1818 an early settler, Gideon Lincecum, recorded in his journal that yearly fires set by "Indian hunters" kept the woods so open that he was able to travel by wagon through the "unhacked" forest from Tuscaloosa to Columbus, MS without cutting any trees.

The Choctaws were relocated to Oklahoma by the U.S. government in 1830. Only a few Choctaws managed to avoid the relocation. Their descendents reside in what is now Philadelphia, MS.

## The Benefits of Controlled Burns

- **Fuel Reduction**  
Controlled burns are the only effective means of reducing naturally occurring fuels within forest areas.
- **Timber Management**  
Controlled burns are the most environmentally sound and least expensive method of preparing areas for seeding or planting new trees.
- **Wildlife Management**  
Controlled burns are an efficient and economical tool for wildlife habitat enhancement.
- **Ecosystem Restoration & Management**  
Many of the natural systems in the southeastern coastal plain are dependent upon periodic, low intensity fire for maintenance of their biological integrity.
- **Suppression of Disease & Pests**  
Certain pathogens that reduce growth in pines and other plant species can be restricted or eliminated by the use of controlled burns.

## FOR ADDITIONAL INSIGHTS

For additional insights into the use of controlled burns, read our article entitled "Fire Is Charleston's Friend: Weapons Station Using Prescribed Fire to Manage Natural Resources" in the fall 2005 issue of *Currents*. The use of controlled burns has become an invaluable tool for managing natural resources at the Naval Weapons Station Charleston, SC as well. You can browse the entire *Currents* archives via the Naval Air Systems Command's environmental web site at [www.enviro-navair.navy.mil](http://www.enviro-navair.navy.mil). *Currents* is also available on the

Defense Environmental Network & Information eXchange at [www.denix.osd.mil](http://www.denix.osd.mil) via "Publications/Source/Navy/Currents" and "Publications/Frequency/Quarterly/Currents".





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—Jim Copeland, PWD Meridian Forester

"Imagine yourself as a Choctaw living near what is now Ponta Creek Golf Course," said Copeland. "They would have cleared a few acres of forest to grow beans, corn and squash. But how did they do that with stone axes?"

They cleared the land by creating a fire in brush piles around the trees, planting crops between the dead trees, and then burning up the dead snags. Every year or so when the conditions were right, they would set fire to the

surrounding forest, using fire to remove the fuel growing up in the area around their home.

These controlled burns not only helped prevent larger forest fires, they enhanced the ecosystem. Grasses sprouted back quickly after fire. Deer, turkeys and other wild game returned to eat the tender sprouts nourished by the ashes. Even buffalo spread east of the Mississippi River through the fire-maintained forested grasslands of the Southeast between 1000 and 1600 A.D.

Like the Choctaws and early settlers, the NAS Meridian Integrated Natural Resources Management Plan regards fire as an integral part of the Southern pine ecosystem. "Rather than attempt to exclude fire and allow fuel to accumulate for a future catastrophic fire, we retain fire as a tool useful in maintaining the forest and the web of life it supports," said Copeland. 

Photos by NAVFAC Southeast Public Works Department Meridian

## To Learn More About Fire Ecology...

**t**o learn more about fire ecology, go to the Tall Timbers web page at <http://www.talltimbers.org/research/fireeco.htm>.

You can also visit the Nature Conservancy's web page on fire and conservation at <http://www.nature.org/initiatives/fire/>.



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